

## THE MINERAL INDUSTRY OF

# FIJI

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The Republic of Fiji is an archipelago of more than 320 islands that is about 3,000 kilometers (km) northeast of Sydney, Australia; about 100 of these islands are inhabited (Resource Information Unit, 2002a, p. 4). The archipelago is bound on the west by the Yasawa Islands, which are the closest islands of Fiji to the Melanesian islands of Vanuatu. Along the eastern boundary of Fiji lie the numerous islands of the Lau Group, which border the islands of the Kingdom of Tonga in western Polynesia. Near the center of the Lau and the Yasawas lie the main islands of Fiji, which are the following by size: Viti Levu, Vanua Levu, Kandavu, and Taveuni, which roughly straddle the dividing line between Melanesia and Polynesia. The indigenous Fijians are a mixture of Melanesians and Polynesians (U.S. Department of State, 2002§<sup>1</sup>; Fowler, undated§). The economy was largely based on garment manufacturing, mining, agriculture, and tourism. Fishing and forestry also were important. Fiji is richly endowed in mineral deposits of copper, gold, lead, and zinc. Gold, which has been mined and exported continuously since about 1933, was the country's most valuable mineral resource. Other mineral resources included deposits that contain metals other than gold; crushed and dimension stone; sand and gravel; and sand used for manufacturing cement.

Polymetallic deposits in Fiji typically have high precious- and base-metal grades. A number of deposits of other types, for example disseminated porphyry copper deposits, epithermal precious-metal deposits, residual bauxite deposits, and manganese and heavy-mineral sands deposits have been identified and evaluated. Because none have been shown to have sufficient tonnage to be economically viable, gold and associated silver have been the only metal commodities mined to date. Fiji's mineral industry also consisted of a cement plant for manufacturing portland cement next to the harbor at Suva (Fiji Industries Ltd., undated§).

In 2002, the real gross domestic product increased by 4.4% to about \$2.1 billion following growth of 4.3% (revised) in the previous year. Exports increased by 3.6% in 2002 mainly owing to an increase in gold shipments. Total merchandise imports increased by 9.8%, owing largely to increased imports of minerals and fuels (Asian Development Bank, 2003§). Production from Fiji's mining sector was estimated to have decreased slightly in 2002 from that of 2001 owing to a 3.3% decrease in gold production, even though there was a similar increase of production from Fiji's quarrying sector for aggregate used in construction during the year (Asian Development Bank, 2003§; Emperor Mines Ltd., 2002b§-d§, 2003a§). Gold was the only metallic mineral recovered in Fiji in 2002 and was produced solely at Emperor Mines Ltd.'s Vatukoula Mine, which is often referred to as the Emperor Mine. Nevertheless, Emperor Mines' gold production was estimated to generate approximately 5% to 6% of Fiji's foreign exchange. The mine is on the northwestern coast of Viti Levu, approximately 380 km by road from the capital at Suva. The Vatukoula Mine has produced nearly 200,000 kilograms of gold since continuous operations began in 1934 (Emperor Mines Ltd., 2003a§). The gold is found as native gold, auriferous pyrite, and gold tellurides (Gold Gazette, 2002). Gold production during 2002 decreased by 3.8% compared with that of 2001 owing to the geologic complexities encountered at the key high-grade area at the Matanagata East ore body during the fourth quarter. Although gold production decreased in two of the four quarters compared with the previous corresponding quarters, the final quarter was much worse than the others. Ore delivered to the mill decreased by 14% to 126,721 metric tons, which resulted in a 12% decrease in gold production for the quarter (Emperor Mines Ltd., 2003b§). Emperor Mines was the country's largest private employer with more than 1,600 employees.

At the annual general meeting (AGM) of shareholders in April, a resolution was passed to transfer the place of incorporation of Emperor Mines from Douglas on the Isle of Man, United Kingdom, to Sydney, New South Wales, Australia, and to adopt a new constitution. As a result of the transfer and its becoming a registered public company under Australia's Corporations Act 2001, Emperor Mines closed its certificated register on July 31 and began electronic trading of its shares on August 1 (Emperor Mines Ltd., 2002a§, c§).

A long-term strategy aimed at increasing mine production by 30% to 800,000 metric tons per year during the next 3 years by way of a significant surface drilling and underground development and exploration program was presented at the AGM. The program, which is known as Phase Two, included the concept of interconnecting all the underground workings to create operational efficiencies through economies of scale and a greater ability to access ore bodies around Emperor Mines' large Vatukoula goldfield. The Phase Two plan entails an increase in underground development and associated ventilation infrastructure together with an increase in the hoisting capacity of the main Smith shaft (Emperor Mines Ltd., 2002b§; Resource Information Unit, 2002a, p. 490-491).

### References Cited

Gold Gazette, 2002, Vatukoula steeped in history: Gold Gazette, v. 5, no. 46, April, p. 36.  
Resource Information Unit, 2002a, Register of Australian mining 2002-03: Subiaco, Australia, Resource Information Unit, 726 p.

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<sup>1</sup>References that include a section mark (§) are found in the Internet References Cited section.

## Internet References Cited

Asian Development Bank, 2003, Asian development outlook—The Pacific (Fiji islands), accessed May 22, 2003, at <http://www.adb.org/Documents/Books/ADO/2003/default.asp>.

Emperor Mines Ltd., 2002a, Outcome of general meeting, accessed May 23, 2003, at URL <http://www.emperor.com.au/news/ASXReOutcomeofGM120402TfrofDomiciletoAus.pdf>.

Emperor Mines Ltd., 2002b, Three months ended 30 June 2002, Quarterly Report, accessed May 22, 2003, at URL [http://www.emperor.com.au/abouteml/news\\_centre.html](http://www.emperor.com.au/abouteml/news_centre.html).

Emperor Mines Ltd., 2002c, Three months ended 30 September 2002, Quarterly Report, accessed May 22, 2003, at URL [http://www.emperor.com.au/abouteml/news\\_centre.html](http://www.emperor.com.au/abouteml/news_centre.html).

Emperor Mines Ltd., 2002d, Three months ended 31 March 2002, Quarterly Report, accessed May 22, 2003, at URL [http://www.emperor.com.au/abouteml/news\\_centre.html](http://www.emperor.com.au/abouteml/news_centre.html).

Emperor Mines Ltd., 2003a (January), December 2002 quarter results, Investor Presentation, accessed May 21, 2003, at URL [http://www.emperor.com.au/abouteml/news\\_centre.html](http://www.emperor.com.au/abouteml/news_centre.html).

Emperor Mines Ltd., 2003b, Three months ended 31 December 2002, Quarterly Report, accessed May 22, 2003, at URL [http://www.emperor.com.au/abouteml/news\\_centre.html](http://www.emperor.com.au/abouteml/news_centre.html).

Fiji Industries Ltd., [undated], Fiji industry, accessed May 22, 2003, at URL <http://www.state.gov/r/pa/ei/bgn/1834.htm>.

Fowler, John, [undated], Fiji—The warrior archipelago—Fiji geography, accessed May 22, 2003, at URL <http://www.tribesite.com/articles/fiji.htm>.

U.S. Department of State, 2002, Fiji, Background Note, accessed May 22, 2003, at URL <http://www.state.gov/r/pa/ei/bgn/1834.htm>.

## Major Source of Information

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TABLE 1  
FIJI: PRODUCTION OF MINERAL COMMODITIES<sup>1</sup>

Commodity <sup>2</sup>		1998	1999	2000	2001	2002 <sup>c</sup>
Cement, hydraulic <sup>c</sup>	metric tons	90,000	95,000	95,000	95,000	100,000
Gold, mine output, Au content	kilograms	3,690 <sup>c</sup>	4,428	3,842	3,858	3,731 <sup>3</sup>
Silver, mine output, Ag content	do.	1,780 <sup>c</sup>	2,129	1,475	-- <sup>c</sup>	--

<sup>c</sup>Estimated; estimated data are rounded to no more than three significant digits. -- Zero.

<sup>1</sup>Table includes data available through May 23, 2003.

<sup>2</sup>In addition to the commodities listed, crushed and dimension stone, sand and gravel, and sand for cement manufacture are produced, but data are insufficient to make reliable estimates of quantities.

<sup>3</sup>Reported figure.